

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of *Helonias bullata* (Swamp Pink) to be a Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Helonias bullata* to be a threatened species and thereby provides the species needed protection under the authority contained in the Endangered Species Act of 1973, as amended. Approximately 75 populations are known to occur throughout the species' range from New Jersey to Georgia. Thirty-five of the known populations occur in the freshwater wetlands of New Jersey's coastal plain. Sixteen populations are known in Virginia; North Carolina has seven; Delaware has six; and Maryland has four populations. Georgia and South Carolina each have one known population, and the plant is believed extirpated from New York. The species is threatened by the filling and draining of its wetland habitats and by private collecting. Critical habitat is not being determined.

DATE: The effective date of this rule is October 11, 1988.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal hours at the U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

FOR FURTHER INFORMATION CONTACT: Anne Hecht at the above address or by telephone (617-965-5100 or FTS 829-9316).

SUPPLEMENTARY INFORMATION:

Background

The swamp pink (*Helonias bullata*) represents a monotypic genus in the lily family (Liliaceae), which historically occurred along small streams and in swamps, bogs, and other wetlands from New York to northern Georgia. Although the first collection of the plant is uncertain, it probably occurred in the Philadelphia area in the mid-1700's by

Swedish naturalist Peter Kalm. Based on Kalm's collections, the plant was described by Linnaeus in the first edition of *Species Plantarum* (Brown 1910).

This perennial species is strikingly attractive and very distinctive. It has many smooth, lance-shaped, evergreen leaves, which grow in a basal rosette from a tuberous rhizome. The stout, hollow stem is 1-2 feet (3-6 decimeters) tall and is topped by a short, dense raceme of pink or purplish flowers that appear in April or early May. The species inhabits a variety of freshwater wetlands including spring seepages, swamps, bogs, meadows, and margins of meandering small streams.

The most significant threat to *Helonias bullata* is the direct loss or alteration of its wetland habitats. Many eastern States have lost a significant percentage of their wetlands since the mid-1900's (Tiner 1986). Ditching and draining of lowlands for agricultural purposes and logging of hardwood swamps are continuing, but the greatest ongoing threat is the direct filling or alteration of inland wetlands due to expanding urbanization. Loss of swamp pink habitat can be attributed to channelization for flood control, ditching and draining for increased agriculture, and filling for housing projects, industrial developments, and highways. The quality of wetlands has also been degraded by sedimentation, water pollution and waste disposal. Several New Jersey populations of *Helonias bullata* have been completely destroyed or severely depleted by erosion and siltation from housing project construction activities.

Approximately 100 populations were known to exist historically in the State of New Jersey, but only 35-40 populations remain there today. Most of the historical sites are presumed to have been lost to filling, draining, and development of wetland habitats. A few populations were found during recent intensive field surveys, but these new populations are small and usually in the vicinity of a previously known colony. Some protection from development is provided to populations within the Pinelands National Reserve (Reserve). These colonies are small, however. Virtually all of the State's largest populations are on private land outside of the Reserve and are therefore vulnerable to expanding urbanization (pers. comm. from D. Snyder, cited in Rawinski and Cassin 1986).

Extensive surveys in Virginia located sixteen occurrences of *Helonias bullata*. All but one of these populations occur within a small area (less than 10 miles across) on the western slopes of the

central Blue Ridge Mountains. Ten of the known locations are on the George Washington National Forest. The Forest Service has designated this species as Sensitive, and agency policy protects the plants and their habitat from disturbance. One population is on the Blue Ridge Parkway, and the National Park Service is also committed to the species' protection. Another site is located on a State natural area. The Virginia Natural Heritage Program reports that the completeness of past survey efforts in Virginia makes the discovery of additional populations unlikely. *Helonias bullata* is identified by the Virginia Heritage Program as a strong candidate for State listing, and the Virginia Department of Agriculture and Consumer Services has stated that, "Virginia will probably pursue State listing in the near future."

Seven populations are known to occur in North Carolina, the largest of which is on the Pisgah National Forest. The remaining colonies are on private land. In North Carolina, the plants are found exclusively in mountain bogs. This type of habitat is very rare in the State, and local experts have thoroughly searched most areas where the swamp pink could potentially occur (Sutter 1984). *Helonias bullata* is listed as a threatened species under North Carolina's Plant Protection and Conservation Act of 1979.

Destruction of swamp pink habitat due to agricultural drainage and urbanization has been particularly severe in Delaware. Five colonies are known to have been lost to development, and only six populations remain in the State. Some potential habitat remains to be surveyed, but the possibilities of finding any significant populations are remote. The Delaware Department of Natural Resources and Environmental Control is working to protect the most significant colonies.

One Maryland population straddles land parcels owned by the State and a private party; the other three sites are located entirely on private land. None of these four populations is secure, although the State Natural Heritage Program is working with the landowners to alleviate threats from on-going and planned activities on or adjacent to these sites. A known historical population in Maryland was destroyed by ditching and draining of wetland habitat for agricultural purposes. Maryland lists the swamp pink as a State Endangered plant.

The swamp pink occurs in high mountain bogs in Georgia and South Carolina, each of which has one known population. The scarcity of this habitat type in both States leads local experts to believe there is little chance of

discovering additional populations. The Georgia plants occur on private land, and the South Carolina plants are located on State Heritage Trust Land that was recently purchased to protect the site.

The northern limit of the swamp pink's historic range is southern New York. The New York plants were reported to occur on Staten Island and were last seen in the late 1800's. Unsuccessful surveys conducted in other potential habitats suggest that the plant is extirpated from the State. Previous records of the plant's occurrence in Pennsylvania are considered erroneous.

Helonias bullata was recognized by the U.S. Fish and Wildlife Service (Service) as a "Category 2" candidate for Federal listing as a threatened or endangered species in the comprehensive Federal Register notice of December 15, 1980 (45 FR 82480) and again in the 1985 updated notice (50 FR 39526). Category 2 candidates are taxa for which existing information indicates the possible appropriateness of proposing to list as endangered or threatened, but for which sufficient information is not presently available to biologically support a proposed rule.

The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been newly submitted on that date. The deadline for a finding on those species, including *Helonias bullata*, was October 13, 1983. In October of 1983, 1984, 1985, 1986, and 1987, the petition finding was made that listing *Helonias bullata* was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(iii) of the Act. Such findings require a yearly recycling of the petition, pursuant to section 4(b)(3)(C)(i) of the Act.

In the fall of 1986 the Service completed a project with the Eastern Regional Office of The Nature Conservancy that assessed the range-wide status of 32 plant candidates including *Helonias bullata*. Extensive field searches were conducted in each State throughout the species' range under direction of the State Natural Heritage Programs. As a result of these investigations, the Conservancy recommended that *Helonias bullata* merited Federal protection under the Endangered Species Act as a threatened species. On February 25, 1988 the Service published a proposed rule (53 FR 5740-5743) finding that listing as a threatened species was warranted and proposing to implement the action in accordance with section 4(b)(3)(B)(ii) of the Endangered Species Act.

Summary of Comments and Recommendations

In the February 25, 1988 proposed rule and associated notifications, all interested parties were requested to submit factual information that might contribute to the development of a final rule. Appropriate State resource agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Notices inviting public comment were published in newspapers of general circulation in each area where *Helonias bullata* is known to occur. Sixteen written comments were received; all supported the proposed rule. Comments updating the data presented in the Background or Summary of Factors Affecting the Species are incorporated in those sections of this final rule.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (50 CFR Part 424) set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Helonias bullata* Linnaeus are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The most significant threat to *Helonias bullata* is the direct loss or alteration of its wetland habitats. The plant has been extirpated from many sites in the mid-Atlantic States due to expanding residential, commercial and industrial developments. Increased development has directly destroyed important wetland habitats, and pollution and sedimentation associated with urban and agricultural runoff have rendered many remaining habitats unsuitable for the species.

Ditching and draining of lowland areas to improve or create additional agricultural land have altered the groundwater table of swamp pink habitats. Alteration of the water table adversely affects swamp pink populations by creating unfavorable conditions for the species. Furthermore, changes in the water table modify vegetative succession, encouraging establishment of other more aggressive or non-native plants that then compete with the swamp pink

Many historic swamp pink populations in New Jersey are believed to have been destroyed by filling, draining, or sedimentation of habitat (D. Snyder, cited in Rawinski and Cassin 1988). The North Carolina Division of Parks and Recreation (letter of March 24, 1988) states that, "Wetlands of the type favored by this plant have been eliminated at a very high rate, with over 90% having been destroyed by agricultural drainage, road-building, and urbanization." The Maryland Natural Heritage Program reports that all four populations in that State are threatened by current or proposed activities that could adversely modify their habitat, although all the landowners are presently cooperating with the State and The Nature Conservancy to secure the sites (pers. comm. D. Boone, Maryland Heritage Project, 1988).

B. Overutilization for Commercial, Recreational, Scientific or Educational Purposes

Several wildflower books and field guides refer to *Helonias bullata* as one of the most beautiful plants in the eastern United States. Its striking beauty has caused the plant to be sought by garden hobbyists and curiosity seekers. Many plants have also been taken for scientific purposes in documenting the species' range and distribution. Plants have been frequently taken from the single Georgia population by botanists and private collectors without the knowledge and consent of the landowner. The plant is also known as a highly desirable species for home wildflower gardens. A popular wildflower garden guide, *How to Grow Wildflowers, Wild Shrubs and Trees in Your Own Garden*, identifies the desirability of the swamp pink and recommends the plant for private gardens. Commercial collecting and selling of wild plants, however, does not appear to be significant at this time. A few commercial nurseries or gardens do sell plants cultivated from seed.

C. Disease or Predation

Disease is not known to be a threat to existing populations. Deer have extensively browsed some swamp pink colonies, but the specific role deer may play in the life history and ecology of the plant has not been determined.

D. The Inadequacy of Existing Regulatory Mechanisms

Helonias bullata is afforded legal protection in North Carolina by North Carolina General Statute 19B, 202.12-202.19, which protects State listed species by banning intra state trade (without a permit), providing for

monitoring and management, and prohibiting taking without written permission of the landowner. The Georgia Wild Flower Preservation Act of 1973 prohibits digging, removal, or sale of State listed plants from public lands without the approval of the Georgia Department of Natural Resources; the single Georgia population, however, is on private land. In 1987, Maryland added the swamp pink to its list of endangered plants. Maryland law prohibits taking of listed plants from private land without the landowner's written permission and from State land without a permit. Maryland also forbids trade and possession of State endangered species. New Jersey Administrative Code 7:50-1 *et seq.* prohibits developments in the vicinity of threatened or endangered plants, including *Helonias bullata*, but only within the boundary of the Pinelands National Reserve. No State laws or regulations currently protect this species in Delaware, Virginia, or South Carolina.

Except within the New Jersey Pinelands, no State law or regulation affords this species protection from the habitat modification activities that pose the most significant threat (as described under factor A, above) to the plant. The North Carolina Plant Protection and Conservation Act specifically states that incidental disturbance of protected plants during agriculture, forestry or development operations is not illegal as long as the plants are not collected for sale or commercial use.

Section 404 of the Clean Water Act provides some controls on modification of wetland habitats. However, many *Helonias bullata* populations are located in headwater or isolated wetlands that may be eliminated by the placement of up to 10 acres of fill under Nationwide Permit No. 26 (33 CFR 330.5(a)(26)). Listing of the species will exempt wetlands where the plants are found from the Nationwide Permit and subject them to individual permit requirements, including consultation under Section 7 of the Endangered Species Act.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

In the southern portion of the species' range, swamp pink populations are frequently associated with plant communities typical of more northern areas. In these areas, groundwater-influenced soils help maintain the perennial cool temperature regimes required by this species. Ditching and draining of adjacent lands for agricultural purposes, suburban

development, industrial parks, etc., or the withdrawal of groundwater for public water supply that could alter the groundwater regime may adversely modify the temperature as well as the moisture level in the plant's habitat.

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Helonias bullata* as threatened. Due to the small number of populations and the threats to its wetland habitats the plant is in need of protection. In addition, the protection of the specific areas where the plants occur may not provide sufficient protection if development projects or other actions in the watershed significantly affect the local groundwater regime. A better understanding of the species and its habitat requirements, which may be acquired through recovery-related research, is needed to aid in the conservation of this plant.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The designation of critical habitat is not considered to be prudent when such designation would not be of benefit to the species involved (50 CFR 424.12). In the present case, the Service believes that designation of critical habitat would not be prudent, because no benefit to the taxon can be identified that would outweigh the potential threat of collection, which might be caused by the publication of a detailed critical habitat description and map.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal and State agencies, private conservation organizations, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Some on-going and potential recovery actions and other conservation measures, including

required protection efforts by Federal agencies and prohibitions against taking are discussed, in part, below.

The Nature Conservancy and State natural resource agencies are actively working with landowners to protect the sites of several populations. The single South Carolina population was purchased to protect the area as State Heritage Trust Land under auspices of the South Carolina Wildlife and Marine Resources Department. Eleven of the known swamp pink populations occur on U.S. Forest Service land and one on National Park Service property. Both Federal agencies supported the proposed rule and are taking action to protect the species and its habitat. Several populations are being considered for inclusion within the acquisition boundary of the proposed Cape May National Wildlife Refuge in New Jersey. The New Jersey Freshwater Wetlands Act regulates development in a 150 foot upland buffer around wetlands that are documented habitat for species listed pursuant to the U.S. Endangered Species Act.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act, are codified at 50 CFR Part 402. After a species is listed, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible agency must enter into formal consultation with the Service. The Baltimore-Washington International Airport is conducting preliminary planning for several projects, subject to Federal Aviation Administration approvals, that could indirectly affect a known population. It is presently anticipated that these projects can be designed to protect the plants. The Service recently requested that the U.S. Army Corps of Engineers (Philadelphia District of the North Atlantic Division) confer informally about an application for a permit under section 404 of the Clean Water Act that may adversely affect a population in New Jersey.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plant species. With

respect to *Helonias bullata* all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71 would apply. With certain exceptions, these prohibitions make it illegal for any person subject to the jurisdiction of the United States to import or export any threatened plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell or offer it for sale in interstate or foreign commerce, or remove it from areas under Federal jurisdiction and reduce it to possession. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. The Act and 50 CFR 17.71 and 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. Commercial trade in wild *Helonias bullata* is not known to exist at this time, although plants grown in cultivation from seed are known to be sold by a few private nurseries. The Service, therefore, anticipates a few requests for permits. Requests for copies of the regulation on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 27329, Washington, DC 20038-7329.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited

- Brown, S. 1910. *Helonias bullata* L. in New Jersey Bartonica 3:1-6.
- Rawinski, T., and J.C. Cassin. 1986. Status report on *Helonias bullata*. Unpublished report prepared for U.S. Fish and Wildlife Service.
- Snyder, D.B., and V.E. Vivian. 1981. Rare and endangered vascular plant species in New Jersey. U.S. Fish and Wildlife Service, Newton Corner, Massachusetts.
- Sutter, R.D. 1964. The Status of *Helonias bullata* L. (Liliaceae) in the southern Appalachians. *Castanea* 49:9-16.
- Timer, R.W., and J.T. Finn. 1986. Status and recent trends of wetlands in the five mid-Atlantic States. U.S. Fish and Wildlife Service, Newton Corner, Massachusetts.

Author

The primary author of this rule is Anne Hecht (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation**PART 17—[AMENDED]**

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations is amended as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-

304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*); Pub. L. 99-625, 100 Stat. 3500 (1986), unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order under the family Liliaceae to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and Threatened plants.

* * * * *

(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Liliaceae—Lily family:						
<i>Helonias bullata</i>	Swamp pink.....	U.S.A. (DE, GA, MD, NC, NJ, NY, T SC, VA).	.	326	NA	NA
.

Dated: August 11, 1988.

Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 88-20496 Filed 9-8-88; 8:45 am]

BILLING CODE 4310-55-M